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SEMICONDUCTOR DEVICE AND MANUFACTURE THEREOF

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Abstract of **JP63316476**

PURPOSE:To prevent gate electrode/wiring from being deteriorated due to heat treatment, by covering upper and side planes of the gate electrode/wiring with a silicon oxynitride film. CONSTITUTION:A gate insulating film 2 is formed on a surface of a semiconductor, and a high-melting point metallic film 3 made of molybdenum or tungsten or the like is formed on the film 2, and a silicon oxynitride film 4 is produced by a CVD method. Photolithography or the like is used to perform selective etching of the oxynitride film 4 and the high-melting-point metallic film 3 serially so that gate electrode/wiring 3 of desired shape is formed. Next ion implantation for LDD (lightly Doped Drain) formation is performed to form source/ drain 8 of low concentration. A silicon oxynitride film 6 is formed again and the whole surface of the semiconductor is provided with much anisotropic etching so that side and upper planes of the high-melting-point metallic film and the wiring 3 are covered with the oxynitride film. Hence, the gate electrode/ wiring can be prevented from being deteriorated in its characteristics.